



Computer Preparation Book

2nd.Sec
Second Term



2024 - 2025



Teacher's Biography

Name:

School:

The educational administration:

Qualification:

Teaching Subject:

Comprehensive School:

The school to which he is delegated:

Date of appointment:

The job is on the staff:

Teacher Code:

Mobile Number:

Teacher

Supervisor

School Principal



Daily class schedule

Session Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eightieth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Session Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eightieth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Teacher

Supervisor

School Principal

Distribution of computer and information technology content

For 2nd.Sec - 2024 - 2025

Second Term



Week	Topic	Accompanying activities	
1	A review of what was previously studied in the first semester	Practical parts for each lesson	
2	Unit Four :- dealing with website data Topic 1:- Search for the term page " Search_term.php" php code and associated activities		
3	Topic 2:- Del_term.php term deletion page php code and associated activities		
4	Topic ٣: Edit term data page Edit_term.php php code and associated activities		
5	Solve questions and exercises on Unit Four		
6	Unit Five :- Securing the “Illustrated Computer Dictionary of Terms” website Topic 1:- Introduction to securing websites		
7	Topic 2: Creating a new user registration page		
8			
9	Topic ٣: Designing the login and logout page		
10	Topic ٤: Procedure for securing the site		
11			
12	MySQL database		
13	Solve questions and exercises on Unit Five		
14	General review and solution of questions for the second semester		



The General Objectives of Computer

At the end of the second term the student will be able to:

- ☒ **Know** some of the concepts of operations related to infrastructure for computer systems, databases, programming languages of creating Web pages, and secure web sites, etc.
- ☒ **Know** some basic concepts and processes related to applications and services of information and communication technology.
- ☒ **Understand** some aspects of intellectual security (human and moral and social) and the security of information related to the use of information and communication technology.
- ☒ **Use** production technology tools (HTML & PHP & SQL) in the support and development of education.
- ☒ **Produce** the project of "Illustrated Dictionary of computer terms" using the processes and programs and technological tools.
- ☒ **Employ** technological tools of communication in the exchange of content, communication and interact and cooperate with others to support learning
- ☒ **The use of technological tools and resources in dealing with information and data, electronic processing and evaluating and reporting the results.**

Teacher

Supervisor

School Principal



The specified objectives of computer

At the end of the second term the student will be able to:

- ❖ **Create** a search page for a term.
- ❖ **Explain** the PHP code for implementing the search page for the term
- ❖ **Follow** the procedures for searching for the term in the database .
- ❖ **Create** a page to delete the term.
- ❖ **recognize** Parts of the PHP code for implementing a page with a term.
- ❖ **Perform** the process of deleting a term from the database .
- ❖ **Creates** a term data modification page using HTML and PHP code
- ❖ **Perform** the process of modifying term data in a database .
- ❖ **Deduce** the procedures for creating a help page .
- ❖ **cooperate** with his colleagues in implementing the unit's activities .
- ❖ **Explain** repetition sentences (Do While - While - For).
- ❖ **Design** the interface of the term search page.
- ❖ **Explain the** HTML code for the term search page.
- ❖ **Add** PHP code fragments to the correct place within the code page.
- ❖ **Add** PHP code to embed my pageHeader & Connection
- ❖ **Collaborate** with colleagues in writing PHP code to search for a term.
- ❖ **Perform** term searches
- ❖ **Create** a term deletion page in design style with HTML code through a program Expression Web
- ❖ **Learn** some concepts and information about securing websites.
- ❖ **Create** a new user registration page.
- ❖ **Create** signin.php login and logout page. signout.php
- ❖ **design** an electronic means to spread awareness of safe use of the Internet.
- ❖ **Discusse** some concepts and issues related to intellectual security and information security when using security methods Information and communications technology.
- ❖ **Follow** methods to protect applied programs from risks to which they may be exposed.
- ❖ **Document** the information he obtains from electronic information source

Teacher

Supervisor

School Principal

Date					
Session					
Class					

General Review on First Semester

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming – dialogue and discussion – cooperative learning
<ul style="list-style-type: none"> Recognizes some basic concepts and terminology associated with creating a website. Adds php code To include the Header & Connection pages write php code in correct way. 	Teaching aids
	Electronic whiteboard – textbook – presentation

Warm up / What are the most important concepts and basic terms associated with creating a website?

Lesson Presentation

Firstly : Create a database called **dbdictionary** that contains a **terms table** with **5 fields**

Second : The following website pages were created:-

HomeIndex.php

- Connection.php database connection page
- Header.php header page
- Add term pageAdd_Term.php
- Term search pageSearch_Term.php
- Edit term pageEdit_Term.php
- Del_Term.php delete term page
- Help pageHelp.php

Note:-

connection -header page is hidden and is included with the rest of the site's pages through the **PHP code**.

Third : Data has been entered successfully through the entry page.

Fourthly: Verify that the data is entered by opening the database and typing the following address in the browser **localhost/phpmyadmin**

Table: Terms				
#	Name	Type	Length values	Index
1	Id	Integer	5	Primary
2	Term	VarChar	50	
3	Trans	VarChar	50	
4	Defe	VarChar	220	
5	Picture	VarChar	30	



Evaluation: -

Complete :

- page..... is hidden and is included in the rest of the site's pages through the **PHP code**.

Date					
Session					
Class					

Unit 4 : Dealing with the website data
Lesson 1: searching for term .page.
Seach_form _php

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming – dialogue and discussion – cooperative learning
<ul style="list-style-type: none"> ▪ specific Tasks required to create a website ▪ Plan Website's home page ▪ Add PHP code fragments in the correct place within the code page 	Teaching aids
	Electronic whiteboard – textbook – presentation

Warm up / What are the types of repetition statements in the PHP language ?



Lesson Presentation

Before creating a search page for a term, we should shed the light on:

- ❖ **The concept of looping**
- ❖ **Some statement of looping in PHP language**

In some programs, we may need to repeat a certain code several times, or repeat it until a certain condition is met, and this is what will be used when writing PHP code..

We need to repeat specific code that deals with table records until the condition is met that the term in the record is the same as the term being searched for or modified.

PHP language affords looping statement like

(For - While – do... While)

The looping statement	Explanation
While { }	It is used to execute unknown or un limited number of repetitions and these repetitions can be executed only on one condition at first, testing the condition and be sure the result is true. <u>Example: searching in data base and searching the internet.</u>
Do { } while	Is used in executing an unlimited or unknown number of repetitions , and you start in executing a repetitive circle once before testing the condition if it is true. <u>Example { printing the primary value of the variable }</u>
For{ }	It is used to execute known or limited number of repetitions. It works the same way as while statement. <u>Example (printing the email address of the ministry website 10 times).</u>

Evaluation: -

Complete :

..... It is used to perform a specific and known number of repetitions

Date					
Session					
Class					

Unit 4 : Dealing with the website data

Lesson 2: searching for term .page.

Search_form _php "2"

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming – dialogue and discussion – cooperative learning
<ul style="list-style-type: none"> Designs the interface of the term search page cooperates with his colleagues in writing PHP code to search for a term. Performs term searches. 	Teaching aids
	Electronic whiteboard – textbook – presentation

Warm up / What are the steps followed in designing the interface of the term search page?



Lesson Presentation

Designing the interface for the term search page:

The purpose of creating this page is to search for a term within the database among the terms entered in the “Terms within the database” table **dbdictionary** using the “Select” clause .

PHP Shortcode:

The ultimate purpose of the **code** Next, search for a term in the database file through the “Term Search” page that was previously designed and created, using the term code or number. The term codes can be identified by opening the “terms” database table and using the code in the search in order to simplify **PHP** code and ensure that it performs its purpose in a simple manner, and the following short code achieves this purpose following short code the following:

- Include the header.php page
- Include the database connection page in .connection.php

```

<?php
    include("header.php");
    include("connection.php");
    if(isset($_POST['submit1']))
    {
        $code=$_POST['code_search'];
        mysql_query("SET NAMES 'utf8'");
        mysql_query("select * from terms where id=$code");
        while($row=mysql_fetch_array($query))
        {
            $term=$row['term'];
            $trans=$row['trans'];
            $defe=$row['defe'];
            $picture=$row['picture'];
            echo("$term $trans $defe
            <input name='pic' type='image' src='$picture' width='80' height='80' />
            ");
        }
    }
?>

```

Evaluation: -

Complete:

Header Connection pages are included for the search page.....

Date					
Session					
Class					

Unit 4 : Dealing with the website data

Lesson 3: deleting term .page.

Del_Term _php

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming – dialogue and discussion – cooperative learning
<ul style="list-style-type: none"> cooperate with his colleagues in developing a vision for the interface of the delete term page. Create a term deletion page in design style with HTML code through a program Expression We Perform the deletion operation for a specific term 	Teaching aids
	Electronic whiteboard – textbook – presentation

Warm up / What are the steps to delete a term from the database?



Lesson Presentation

Steps to create a page to delete the term del_term.php

Design Interface page delete Term

The purpose of creating this page, delete a term within the database within the terms entered into the database table **dbdictionary**

Writing PHP code

The ultimate purpose of the following **PHP code** is to delete term data, i.e. "term data record" from the database table through the "Delete Term" page that was previously designed and created, by displaying all the terms through the most accurate **PHP** code or from Through the code – i.e. the term number – by identifying the term codes by opening the database branches **terms** and use codes to delete a specific term record in order to simplify the code **PHP** and ensure that it performs its purpose in a simple way, and the following short code achieves this purpose

following short code the following:

- Include the header.php page
- Include the database connection page in connection.php

```
<>php
    include ("header.php");
    include("connection.php");
    mysql_query("SET NAMES 'utf8'");
    if(isset($_POST['Submit1']))
    {
        $code=$_POST['code_term'];
        $sqldel="delete from terms where id='$code'";
        mysql_query($sqldel);
    }
<<
```

Evaluation: -

Complete :

You must open..... to ensure that the term is deleted

Date					
Session					
Class					

Unit 4 : Dealing with the website data

Lesson 4: editing data term .page.

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming – dialogue and discussion – cooperative learning
<ul style="list-style-type: none"> ▪ Design Modify term page interface ▪ Modify Data in a database table ▪ Create Help page "Help.php" 	Teaching aids
	Electronic whiteboard – textbook – presentation

Warm up / What are the steps for modifying term data from the database?



Lesson Presentation

➤ Making modifying to term data through the following stages :

- * Create a data editing page.
- * Display terms on the amendment page.
- * Choose the term you want to modify.
- * Display the data for the term you want to modify in the controls on the browser screen.
- * Performing modifications within the database.
- * Display data after infringement

First:- Create a page for modifying term data

through one of the web page creation applications:

As previously designed) search – add – delete(pages, for example , we do the following:

1- Write the page title and insert a table. We write in The first row is the column headings as they appear in Next screen

2- Performing processing and modifying term data and saving the modifications in the database table through in PHP code fragments that are added in the places indicated the textbook, page50 .



Second:- Writing the code

The ultimate purpose of the following **PHP code** is to modify term data, i.e. "term data record" from the database table through the " Update Term " page that was previously designed and created, by displaying all the terms through the most accurate PHP code or through the code - This is done by identifying terminology codes by opening the database **terms** and using codes to modify the data of a specific term record in order to simplify the code **PHP** and ensure that it performs its purpose in a simple way, and the following short code achieves this purpose

Third:- Download the term data modification page through the Internet browser

After you finish creating the page , you can open it through an Internet browser to test the implementation Verify that the codes work correctly , as in the following screen, by writing the address

localhost/dictionary/edit_term.php

Evaluation: -

Mention the stages Make a modification to the term data.

Date					
Session					
Class					



Unit 5 : Securing the website of The computer Photographic Term Dictionary

Lesson 1: The entry in securing web site.

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming - dialogue and discussion - cooperative learning
<ul style="list-style-type: none"> ▪ Learn some concepts and information about securing websites. ▪ Realize The importance of securing websites. ▪ Design An electronic means to spread awareness of the safe use of the Internet 	Teaching aids
	Electronic whiteboard - textbook - presentation

Warm up / What is hacking?

Lesson Presentation

➤ **Securing websites is a necessity to stop penetration, which leads to many harms and negative results like:**

1. Stealing or losing important database that may lead to great problems in all fields.

2. Getting foundational or personal information and what harms it may cause

3. Showing unsuitable content that it might contains political, religious, ethical attitudes.

4. Deforming the image of the foundation or the person who owns the website generally.

➤ **The penetration concept**

It's generally called website hacking by using the penetrator the hacker a way or a weak program that enables him to get the validity of controlling the website management or dealing with its database by any way (showing, deletion, editing and so on).

➤ **The ways of protecting the website**

1. **Protecting server** (website hosting) Protecting the website here is the responsibility of **the sever or website** hosting where it makes / sets **security options & controls**.

2. **Protecting the website developers**

- Be sure of the inputs before saving it in the database.
- Encrypt password.
- Managing the important website folders with strong passwords.
- Specifying the user's validity correctly and clearly.

➤ **Some precautions to keep securing the website**

1- Keep software up to date

2- Dealing with error messages

3- The certainty of the correct input data validation from the user website visitor.

4- Passwords

5- SQL Injection

6- Cross Site Scripting

7- File Uploads

8- Sockets Layer

9- Using website security applications and tools

➤ **Securing the Illustrated Dictionary of Terms website is done through the following:**

1- Registering website users by creating a new user registration page(reg.php and save their data in the database).

2- Confirm your login I am not responsible for insertion , modification or deletion operations

3- Encrypt any user's password.

Evaluation: -

Complete:It is one of the ways to protect and secure websites.

Date					
Session					
Class					



Unit 5 : Securing the website

Lesson 2: Creating registration page

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming - dialogue and discussion - cooperative learning
<ul style="list-style-type: none"> ▪ Design a new user registration page. ▪ Create "users" table in the database. ▪ Differentiate between GET & POST in sending data to the server 	Teaching aids
	Electronic whiteboard - textbook - presentation

Warm up / What are the procedures for creating a new user registration page?

Lesson Presentation

➤) Insert a form containing some controls into Expression Web (

Form It is used to pass or send all form data contained in controls from the web browser to the **Web Server**

➤ There are two ways to submit form data:

Get

* The data is not confidential because it appears in the title bar of the screen .internet browser
* .Data size is small

Post

The data sent is secure .and confidential

Form Properties window The value **Post** is specified for the **Method** property The value has not been specified **Get**

➤ Study the **HTML code** . shown in the textbook, page ٧٧ which looks as ,

➤ Add **PHP** code in place of the numbers indicated in the **HTML code style** :as follows

رقم	كود PHP
١	ملاحظة لابد أن يكتب هذا الكود في بداية الصفحة قبل الكود <?php session_start(); ?>
٢	<?php include("header.php"); ?>
٣	<?php include("connection.php"); if(isset(\$_POST['Submit1'])) { \$txt_user=\$_POST['txt_user']; \$txt_pass=\$_POST['txt_pass']; \$txt_con=\$_POST['txt_con']; mysql_query("SET NAMES 'utf8'"); \$query=mysql_query("insert into users values('','\$txt_user','\$txt_pass')"); } ?>

Evaluation: -

Complete: There are two ways to submit form data.....,

Date					
Session					
Class					

Unit 5 : Securing the website
Lesson 3: Creating registration page



Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming - dialogue and discussion - cooperative learning
<ul style="list-style-type: none"> ▪ Create signin.php login page using Expression Web ▪ cooperate with his colleagues in studying the HTML & PHP code to create the login page. ▪ Create a signout page Signout.php using Ex 	Teaching aids
	Electronic whiteboard - textbook - presentation

Warm up / What are the procedures for designing the login and logout page?

 **Lesson Presentation**

➤ **Steps to create the page:**

- Open the Expression web program and design a page called Sign in .php
- Insert a form and place controls : on it as in the following screen



➤ **HTML and PHP code for creating a login page : Textbook , p. ٩٣**
 ➤ **Designing a sign outpage.php using Expression web :**

```

<?php
session_start();
$_SESSION['username'] = "";
header("Location: index.php");
exit;
?>
    
```

Evaluation: -

Complete:

To create the page insert and insert Controls on it.

Date					
Session					
Class					

Unit 5 : Securing the website

Lesson 4: The website security Precautions

Learning Objectives:	Strategy
<p>By the end of the lesson the student should be able to:</p> <ul style="list-style-type: none"> ▪ implement modifications on the site according to the concept of the user's session for the possibility of modification or modification Addition or deletion to the database. ▪ Perform hyperlinking operations to user registration, login and logout pages. ▪ Create a signout page <code>Signout.php</code> using <code>Ex</code> 	<p>Brainstorming - dialogue and discussion - cooperative learning</p> <p>Teaching aids</p> <p>Electronic whiteboard - textbook - presentation</p>

Warm up / What are the necessary modifications to the site in accordance with a user's login method?

Lesson Presentation

After finishing designing all websites pages and so are signing in & out of a user. We should secure the site by the following:

Adding the code of the beginning of the session we are asked to do it for the recorded user only as an entry .The aim is offering the ability to get the user's name as it is an entry only.

```

<?Pp
    session_start()
<?php
    if(@$_SESSION['username'] == "")    ?>
    {
        echo (" <a href='Signin.php'><span lang='ar-eg'> تسجيل الدخول </span> </a>");
        echo ("&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp ");
        echo "مستخدم غير مسجل";
        $_SESSION['username'] = "";
    }
    else
    {
        echo (" <a href='Signout.php'><span lang='ar-eg'> تسجيل الخروج </span> </a>");
        echo ("&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp&ampnbsp ");
        echo("مرحبا بكم ". " . $_SESSION['username']);
    }
?>

```

Explanation of the code

IF conditional sentence

`if(@$_SESSION['username'] == "")`

- Php language deals with the sign @ as a variable.
- one of the php language rules is to put the sign \$ before variable name.
- \$ Session is variable in the server memory for the certainty that the user could sign in or not.

The condition that's concerned with IF statement

it is tested if the user name equal null which means it's empty it has no data, there are two cases if it will be done or not.

Evaluation: -

Complete:A way to store data in a variable inside the server memory for one user.

Date					
Session					
Class					



Unit 5 : Securing the website

Lesson 5: Secure the MYSQL database

Learning Objectives:	Strategy
By the end of the lesson the student should be able to:	Brainstorming - dialogue and discussion - cooperative learning Teaching aids Electronic whiteboard - textbook - presentation
<ul style="list-style-type: none"> ▪ Mention ways to secure the database ▪ Discusse the largest number of ideas for securing databases. ▪ Modify the username and password in the database 	

Warm up / How can the database be secured MYSQL?

Lesson Presentation

Create a password to secure the database:

When installing the **XAMPP** program , a user named **root** is created Without a password that means Allowing everyone to deal with the database, and from here it is clear that it is necessary to create a password to secure the database data

Remember the code on the **Connection.php** page :

```

<?php
    $username="root";
    $password="";
    $database="term";
    $server="localhost";
    $connect=mysql_connect("$server","$username","$password");
    if($connect)
    {
        $select=mysql_select_db("$database") or die("هناك مشكلة في قاعدة البيانات");
    }
    else
    {
        echo ("لم يتم الاتصال بقاعدة البيانات");
    }
?>
  
```

Download the insurance page by typing the following address on your Internet browser page <http://localhost/security/>

Enter a new password and confirm it for a more secure database

Of course, you must modify the password on the **connection.php** page : as follows

```
$password="HowTo_Design_php_web_site";
```

Evaluation: -

Complete: It should not be used to send passwords or any important data.

Date					
Session					
Class					



General Review

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Corporative learning – Dialogue and discussion
<ul style="list-style-type: none"> ▪ Identify the most important terms of the lesson. ▪ Solve the student's book exercises. ▪ Write the project's code in right way. 	Teaching aids
	Electronic board – Student's Book – presentation

Warm up / What are the most important concepts for these term?

Lesson Presentation

Question 1: Put ✓ X:

1. The statement While { } used for executing a number of limited or known of loops. ()
2. The statement While { } used for executing a number of unlimited or known of loops. ()
3. Within While { } statement the condition is checked first if it's true then the code execute. ()
4. The statement Do...while { } used for executing a number of unlimited or known of loops. ()
5. The statement Do... while { } starts looping one single time before the condition is get checked. ()
6. The statement for { } used for executing a number of unlimited or known of loops it works the same as (while) statement. ()
7. The statement Do... while { } used for printing the initial value for the variable. ()
8. The statement For { } used for printing the URL of the ministry ten times. ()
9. The code include("connection.php") used for including php code in the page header. ()
10. The code include("header.php") used for including php code in the page header. ()

Evaluation: -

Evaluate student's answer